

L 09419-67

ACC NR: AT6023739

90 wt%. The temperature of the start of melting of the alloys was determined directly with an optical pyrometer. The X ray analysis was made by the Doby method in a Type RKU-86 cylindrical chamber. A structural diagram was constructed, based on the experimental results. It was found that the melting temperature of the eutectic was $2180 \pm 20^\circ\text{C}$. The eutectic point corresponded to 10 wt% tungsten. The solubility of tungsten at the melting temperature of the eutectic was determined to be about 8 wt%. The solubility of tungsten at a temperature of 2000°C was about 4 wt%. Solubility of uranium monocarbide in tungsten was not observed. A study was made of the diffusion of uranium from its monocarbide in tungsten in the temperature interval of $1500-2100^\circ\text{C}$. The temperature dependence of the diffusion coefficients had the form $D = 0.11 \times \exp(-91,700/RT) \text{ cm}^2/\text{sec}$.

In the temperature interval studied, there was no reaction between uranium carbide and tungsten. Orig. art. has: 5 figures and 2 tables.

SUB CODE: 11, 20/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 003

2/2

ZALUZHNYI, V.

Effort to increase labor productivity is the important task of the state control party organs. Sots. trud 8 no.12: 3-13 D '63. (MIRA 17:2)

1. Zamestitel' predsedatelya Komiteta partiyno-gosudarstvennogo kontrolya Tsentral'nogo komiteta Kommunisticheskoy partii Sovetskogo Soyuza i Soveta Ministrov SSSR.

ZALUZHNYI, V., motorist

Hydraulic-impact press for cleaning atomizers. Art.transp. 40
no.4:55 Ap '62. (MIRA 15:4)
(Cleaning machinery and appliances)

ZALUZHNYI, V.I.

Development of industrial construction in the Kuznetsk Basin.
Prom. stroi. 41 no.2:4-8 F '63. (MIRA 16:3)
(Kuznetsk Basin--Construction industry)
(Kuznetsk Basin--Industrial plants)

ZALUZHNYI, V.I.

Use the cars with greater efficiency. Zhel. dor. transp. 46
no.7:7-13 J1 '64. (MIRA 17:8)

1. Zamestitel' predsedatelya Komiteta partiyno-gosudarstvennogo kontrolya tsentral'nogo komiteta Kommunisticheskoy partii Sovetskogo Soyuza i Soveta Ministrov SSSR.

ZALUZHNYI, V. I.

Creation of a broad base for the supply of building materials
and equipment to the construction industry is the chief challenge.
Stroi,mat. 3 no.1145-8 N '62. (MIRA 15:12)

1. Sekretar' Kemerovskogo oblastnogo komiteta Kommunisticheskoy
partii Sovetskogo Soyuz. (Kuznetsk Basin--Building materials basin)

33734

P/014/62/041/002/001/001
D204/D30311.2211
AUTHORS:Berak, Józef, M., Guzczalski, Romuald, Wójcik, Jerzy,
and Zalwert, Stefan

TITLE:

Synthesis of butadiene from ethyl alcohol, I. Mechan-
ism, thermodynamics and catalysts

PERIODICAL: Przemysł chemiczny, v. 41, no. 2, 1962, 80 - 84

TEXT: A brief historical account, based on Soviet and Western work is first given of the Lebedev single-stage process for the synthesis of butadiene: $2C_2H_5OH \rightarrow C_4H_6 + H_2 + 2H_2O$ (Eq. 1), stressing the importance of the choice of catalyst on the yield. Earlier studies of the complex mechanism of this reaction are then described, accepting the conclusions of Gorin (Ref. 11: Trudy VNIISK, 1, 5, 1948). The first stage is thought to be the dehydrogenation: $CH_3 - CH_2OH \rightarrow CH_3 - CHO + H_2$ (Eq. 2), followed by condensation of the acetaldehyde: $2CH_3 - CHO \rightarrow [CH_3 - CHOH - CH_2 - CHO] \rightarrow CH_3 - CH =$

Card 1/3

3373h

P/014/62/041/002/001/001
D204/D303

Synthesis of butadiene from ethyl ...

$\text{CH}_3\text{CHO} + \text{H}_2\text{O}$ (Eq. 3). The $\text{C}=\text{O}$ group in crotonaldehyde is then hydrogenated with H_2 removed from the ethanol: $\text{CH}_3-\text{CH}=\text{CH}-\text{CHO} + \text{CH}_3-\text{CH}_2\text{OH} \rightarrow \text{CH}_3-\text{CH}=\text{CH}-\text{CH}_2\text{OH} + \text{CH}_3-\text{CHO}$ (Eq. 4). Finally, dehydration and isomerism yields butadiene: $\text{CH}_3-\text{CH}=\text{CH}-\text{CH}_2\text{OH} \rightarrow \text{H}_2\text{O} + \text{CH}_2=\text{CH}-\text{CH}=\text{CH}_2$ (Eq. 5). The present authors' contri-

but ion consists of calculating equilibrium constants (K_p) for Eqs. 1 - 5, for 300, 400, 500, 600, 700, 800 and 1000°K. K_p 's for Eqs. 1 - 2 were calculated by the method of Ulich (Ref. 35: M. Karapetov, 1949), from the heats of reaction and entropy changes at 298°K. K_p 's for Eq. 3 - 5 were computed by the method of Bremner and Thomas (Ref. 36: Trans. Far. Soc. 44, 230, 1948), from the thermodynamic potentials. The values are tabulated, the authors stating that the choice of the optimum temperature for the process would depend on kinetic factors. In the remainder of the article the authors review the work done outside the USSR, concerned with the catalysts. It is concluded that the best choice would be MgO and SiO_2 , the

Card 2/3

Synthesis of butadiene from ethyl ...

3373h
P/014/62/041/002/001/001
D204/D303

exact properties depending on the method of preparation and on additives. A high activity catalyst, B-4, developed at the Zakład naukowo-badawczy ZCh Oświęcim (Scientific Research Institute of the Chemical Works Oświęcim) will be described in Pt. II of this work. There are 1 figure, 1 table and 57 references: 37 Soviet-bloc and 20 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: J. Bremner and G. Thomas, *Trans. Far. Soc.*, 44, 230, 1948; H. Jones, E. Stanly and B. Corson, *J. Am. Chem. Soc.*, 71, 1822, 1949; B.B. Carson, H.E. Jones, C.E. Welling, J.A. Hinckley and E.W. Stanly, *Ind. Eng. Chem.*, 42, 359, 1950; G.S. Whitby, *Synthetic Rubber*, New York, 1954. ✓

ASSOCIATION: Zakład naukowo-badawczy ZCh Oświęcim (Scientific Research Institute of the Chemical Works, Oświęcim)

Card 3/3

BERAK, Jozef, M.; GUCZALSKI, Romuald; WOJCIK, Jersy; ZALWERT, Stefan

Upgrading of Polish made bentonite by acid treatment. Przem chem
39 no.9:573-575 S '60.

1. Zakład Naukowo-Badawczy, Zakłady Chemiczne, Oswiecim.

BERAK, Jozef M.; GUCZALSKI, Romuald; WOJCIK, Jerzy; ZALWERT, Stefan

Butadiene synthesis from ethyl alcohol. Pt. 1. Mechanism, thermodynamics, and catalizers of the reaction. Przem chem 41 no.2:80-84 F '62.

1. Zaklad Naukowo-Badawczy, Zaklady Chemiczne, Oswiecim.

BERAK, Jozef M; GUCZALSKI, Romuald; WOJCIK, Jerzy; ZALWERT, Stefan

Synthesis of butadiene from ethylalcohol. I. The mechanism, thermodynamics and catalysts of the reaction. Przem chem 41 no.2:80-84 F '62.

1. Zaklad Naukowo-Badawczy, Zaklady Chemiczne, Oswiecim

ZALWERT, STEFAN

Distr: 4E2c(m)

Effect of the presence of silica on the decomposition
of the system $Mg(OH)_2 - MgCO_3$ *lozel*
Stefan Zalw

6
MEL(JD)

GR
Z. A. van Zetteren
BERAK, Jozef, dr.inz.; GUCZALSKI, Romuald, mgr.; WOJCIK, Jerzy, mgr.;
ZALWERT, Stefan, mgr.

Bentonites. Wiad chem 14 no.11:693-716 N '60.

1. Kierownik Laboratorium Syntezy Monomerow, Zaklad Naukowo-Badawczy, Zaklady Chemii Organicznej, Oswiecim (for Berak)
2. Starsi inzynierowie Laboratorium Syntezy Monomerow, Zaklad Naukowo-Badawczy, Zaklady Chemii Organicznej, Oswiecim (for Guzczalski and Wojcik)
3. Kierownik Pracowni Badan Strukturalnych, Laboratorium Syntezy Monomerow, Zaklady Chemii Organicznej, Oswiecim. (for Zalwert).

BERAK, Jozef M.; GUCZALSKI, Romuald; WOJCIK, Jerzy; ZALWERT, Stefan

Synthesis of butadiene from ethyl alcohol. II.: Investigation of the activity of the B-4 catalyst. Przem chem 41 no.3:130-133 Mr '62.

1. Zaklad Naukowo-Badawczy ZCh Oswiecim

EERAK, Jozef M.; GUGZALSKI, Romuald; WOJCIK, Jerzy; ZALWERT, Stefan

Cation exchange and thermal treatment and their influence upon the rehydration property of montmorillonite from Kielce. Przem chem 41 no.12:692-695 D '62.

1. Laboratorium Katalizy Zakladu Naukowo-Badawczego, Zaklady Chemiczne, Oswiecim.

S/081/62/000/006/117/117
B110/B101

AUTHOR: Zalwert, Stefan

TITLE: State of the molecular ordering of polymers

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 738, abstract
6R51 (Twrczywa wielkocząsteczkowe, v. 6, no. 4, 1961, 111-115)

TEXT: The state of the molecular ordering of high-molecular compounds at a model of the amorphous-crystalline structure of polymer chains is considered and various forms of polymer morphological structure are examined. 15 references. [Abstracter's note: Complete translation.]

Card 1/1

ZAJNERT, S.

Conference on the problems of progress in the field of obtaining and processing polyvinyl chloride. Wiad chem 16 no.10:638-639 0 '62.

ZALIYABEROV, N. Z.

JA 17078

USSR/Biology - Cattle

Jun 50

"New Breed of Cattle - Kazakh White-Headed Breed,"
N. Z. ZaliyaberoV, Cand Agr Sci, T. F. Tavildarova,
Cand Agr Sci, Inst of Animal Husbandry, Kazakh
Affiliate, All-Union Order of Lenin Acad Agr Sci
Inst W. I. Lenin

"Dok v-s Ak Selkhoz Nauk" No 6, pp 14-18

Cites data on productivity of milk and meat of
several herds of new breed developed by inter-
breeding, started in 1932, of local cattle with
Herefords imported from England and Uruguay. Sub-
mitted 20 Jan 50 by Acad Ye. F. Liskun.

17078

ZALYAKHOVSKAYA, R.F.; PROTASOV, A.A.

Role of carbonate rocks of the Kazanian stage in the development of
karst in the Dzerzhinsk region. Trudy Lab.gidrogeol.probl. 47:68-
71 '62. (MIRA 15:6)
(Dzerzhinsk region (Gorkiy Province)—Rocks, Carbonate)
(Dzerzhinsk region (Gorkiy Province)—Karst)

ZALYALETDINOV, Latif Zalyaletdinovich

(Kazan' Affiliate of the Acad Sci USSR) - Academic degree of Doctor of Philological Sciences, based on his defense, 24 September 1954, in the Council of the Inst of Linguistics of the Acad Sci USSR, of his dissertation entitled: "The Middle Dialect of the Tatar language."

Academic degree and/or title: Doctor of Sciences

S0: Decisions of VAK, List no. 27, 24 Dec 55, Byulleten' MVO SSSR, Uncl. JPRS/NY 548

ZALYALETDINOV, R.S.

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957, 112-1-1383
Nr 1, p. 213 (USSR)

AUTHOR: Zalyaletdinov, R. S.

TITLE: Automatic Pumping out of Petroleum from Hoppers
(Avtomaticheskaya otkachka nefi iz merfikov)

PERIODICAL: Novosti nefi. tekhn. Neftepromysl. delo, 1956, Nr 3,
pp. 12-14

ABSTRACT: Bibliographic entry.

Card 1/1

VOSTRIKOVA, V.N.; GUROVICH, R.E.; AEROV, M.E.; MOTINA, G.L.; ZALYALETDINOVA, R.G.

Separation of acrolein from its low concentration aqueous solutions.
Neftekhimiia 3 no.2:254-258 Mr-Apr '63. (MIRA 16:5)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov
i organicheskikh produktov.

(Acrolein)

ZALYALYUTDINOVA, S.Z.

Use of plastic (egmass-12) in maxillofacial surgery. Kaz.
med. zhur. no.1:49-51 Ja-F '62. (MIRA 15:3)

1. Kafedra khirurgicheskoy stomatologii (zav. - prof. Ye.A.
Domracheva) Kazanskogo meditsinskogo instituta i Respublikanskaya
stomatologicheskaya bol'nitsa (glavnyy vrach - S.Z. Zalyalyutdinova).
(JAWS--SURGERY)
(FACE--SURGERY)
(PLASTICS IN MEDICINE)

REF ID: A6408123

ACCESSION NR: A6408123

S/0299/64/000/005/M013/M015

SOURCE: Referativnyi zhurnal. Biologiya, Abs. 5M83

AUTHOR: Zalvalutdinova, S. Z.

B

TITLE: Skin grafting following excision of a deep burn wound in animals with acute experimental radiation sickness 19

CITED SOURCE: Eksp. im. khirurgiya i anesteziol., no. 5, 1963, 45-47

TOPIC TAGS: radiation sickness, wound healing, skin grafting, burn

ABSTRACT: In experiments carried out on 45 rabbits, the animals of group I were subjected to third-degree thermal burns while those of group II were subjected to acute experimental radiation sickness and then subjected to thermal

Card 1/2

L 6993-65

ACCESSION NR: AR4021523

of treatment. N.S.

SUB CODE: LS

ENCL: 00

Card 2/2

OKSMAN, I.M., prof.; ZALYALYUTDINOVA, S.Z.; OGOHEL'TSEVA, A.D.

State of orthopedic stomatological service in the Tatar A. S. S. R.
Vop. obshchei stom. 17:125-128 '64.

(MIRA 18:11)

I 28009-66 EWT(m)

ACC NR: AP6018199

SOURCE CODE: UR/0241/65/010/012/0038/0041

AUTHOR: Zalyalyutdinova, S. Z. 20
B

ORG: Republican Stomatological Hospital, Ministry of Health, Tatar ASSR (Respublikanskaya stomatologicheskaya bol'nitsa Ministerstva zdravookhraneniya Tatarskoy ASSR); Department of Roentgenoradiology, Kazan' Medical Institute /headed by Professor M. I. Gel'dshteyn/. (Kafedra rentgeno-radiologii Kazanskogo meditsinskogo instituta)

TITLE: Comparative assessment of the growth of free skin transplants during different periods of radiation sickness 19

SOURCE: Meditsinskaya radiologiya, v. 10, no. 12, 1965, 38-41

TOPIC TAGS: radiation sickness, rabbit, skin physiology, histology

ABSTRACT: Rabbits were used in experiments carried out to determine the morphological modifications which take place in skin flaps grafted on a burn lesion at different periods of radiation sickness. Histological examinations of 49 irradiated and 13 control rabbits were conducted on the 5th through the 60th days following the skin transplantations. The skin flaps were taken from the animals under anesthesia, fixed in a 12 percent solution of formalin, and covered with celloidin. Vertical sections of the skin flaps were stained with microfluchsin and hematoxylin-eosin and were periodically examined along the line of the junction of the transplant with the recipient lesion bed. The

Card 1/2

UDC: 616.5-089.843-089.168.2:616-001.28-036

L 28009-66

ACC NR: AP6018199

0

examinations established certain dystrophic and proliferating processes in the auto-transplants grafted during the latent period of radiation sickness. Hemorrhagic foci tend to develop in skin grafts and maternal tissue during the third period of the disease, the degree of these foci related to the severity of the radiation sickness. Sharp inhibition of proliferation and inflammatory processes was noted in the animals in which surgical interference coincided with the acme of the radiation sickness. Morphological transformations of the transplanted skin were found to be more intense when the grafting is carried out in the period of the resolution of radiation sickness. The latent period or the period of the resolution of radiation sickness are thus the most favorable for skin grafting. Orig. art. has: 3 figures. JPRS

SUB CODE: 06 / SUBM DATE: 20Mar63 / ORIG REF: 006

Card 2/2 *pla*

ZALYALOV, F.K.

ZALYALOV, F.K., kand.sel'skokhozyaystvennykh nauk; SHIROKOV, B.G.,
kand.sel'skokhozyaystvennykh nauk; GMYRENKO, G.L., nauchnyy
sotrudnik.

Using organomineral fertilizer mixtures on southern Chernozems
of Stalingrad Province [with summary in English]. Izv.TSEkha
no.5:37-42 '57. (MIRA 11:1)
(Stalingrad Province--Fertilizers and manures)

M

Country : USSR
Category : CULTIVATED PLANTS. FODDER
Abs. Jour. : REF ZHUR-BIOL.,21,1958,NO-96021
Author : Zalyalov, F.K.
Institut. : Timiryazev Agric. Acad.
Title : The Grass Mixture Composition for Field Crop Rotation in the Central Part of the Non-Chernozem Soil Zone
Orig. Pub. : Izv. Timiryazevsk. s.-kh. akad., 1957, NO. 5, 121-138
Abstract : The findings of a study conducted by the Vil'yams Soil-Agronomic Station and Aleksandrovskaya Selection Station on the selection of the grass mixture components for field crop rotations on the peat-podzolic soils of Vladimirskaia Oblast' during 1947-1951. The most productive in relation to a clover and timothy mixture (averaging a hay crop of 100 cwt/ha.) is a three-fold mixture of clover, alfalfa and timothy (110-115.8 cwt/ha.) or clover, birdsfoot trefoil and timothy (131 cwt/ha.). The
Card: 1/3

71

Country : M
Category : CULTIVATED PLANTS. FODDER

Abs. Jour. : REF ZHUR-BIOL., 21.1958, NO-96021

Author :
Institut. :
Title :

Orig. Pub. :

Abstract : advantage lies in the fact that the leguminous part of the mixture creates a stabler stand, provides higher yields of more uniform hay during the years when this is used, forms a substantially greater organic mass, improves the soil structure and yields higher spring wheat harvests on the layer (the grain harvest was respectively 17.9, 20.5 and 20.2 centners per hectare). Soil liming is a very efficient method for increasing the hardness of the legumes and of strikingly

Card: 2/3

ZALYALOV, F. K.

"The Composition of Grass Mixtures for Field -Crop Rotation Under the Conditions Prevailing in the Peat-Podzolic Soil Found in Vladimirskaya (blast." Cand Agr Sci, Agricultural Moscow Acad imeni Timiryazev, Moscow, 1953. (RZh^Biol, No 5, Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No.521, 2 Jun 55

COUNTRY : USSR
CATEGORY : Soil Science. Organic Fertilizers. J
ABS. JOUR. : RZhBiol., No. 3 1959, No. 10702
AUTHOR : Zalyalov, F. K., Shirokov, B. G., Gayrenko, G. L.
INST. : Timiryazev Agricultural Academy
TITLE : Organic-Mineral Fertilizing Mixtures on Southern
Chernozems of Stalingrad Oblast'.
ORIG. PUB. : Izv. Timiryazevsk. s.-kh. akad., 1957, No. 5, 37-42
ABSTRACT : On the chernozems of Stalingrad^{oblast}, application of
organic-mineral mixtures is a highly effective method and
more within the reach of the kolkhozes of this zone since
it requires fewer expenditures. Organic-mineral mixture
applied to a fallow field is not less effective than 20
tons of manure applied in combination with the same
amount of mineral fertilizers which are a part of the
fertilizing mixture. -- V. D. Astaf'yeva

CARD: 1/1

33

USSR/Soil Science - Organic Fertilizers. J

Abs Jour : Ref Zhur Biol., No19, 1958, 86807

Author : Zalyalov, F.K.

Inst : Novo-Annenskiy Auxiliary Point of the Agronomic Soil Station in Vil'yams in Stalingradskaya Oblast', Organic -Mineral Mixtures in the Chernozems of Stalingradskaya Oblast.

Orig Pub : S. Kh. Povolzh'ya, 1957, No 11, 18-20

Abstract : It was established that winter crops are most responsive to fertilizers by experiments which were conducted, beginning in 1949, at the Novo-Annenskiy base of the Agricultural Soil Station in Vil'yams (Stalingradskaya Oblast) with insufficient moistening of the soil (380 mm of precipitation per year, including one-third in winter) and air humidity (dry winds) in clayey and heavily-loamy southern chernozems. During 8 years in 10-field crop

Card 1/2

- 45 -

ZALYALOV, F.K.

ZALYALOV, F.K., kand.sel'skokhozyaystvennykh nauk

Forage plants for grassland mixtures of field crop rotations in the central part of the non-Chernozem zone [with summary in English].

Izv. TSKhA no.5:121-138 '57.

(MIRA 11:1)

(Rotation of crops) (Forage plants)

Zalyalov, F.K.

ZALYALOV, F.K., kand. sel'skokhozyaystvennykh nauk.

After effect of deep plowing on southern Chernozem soils. Zemledelie
6 no.1:27-30 Ja '58. (MIRA 11:1)

(Plowing)

ZALYALYUEDINOVA, S.Z.

Work of the Tatar Republic Stomatological Association. Stomatologiya
37 no.4:77 J1-Ag '58 (MIRA 11:9)
(TATAR A.S.S.R.—STOMATOLOGY)

ZALYAN, R.A.

TSATURYAN, F.G.; ZALYAN, R.A.

Features of the anatomical structure of the stem in Caucasian
dodders. Nauch. trudy Erev. un. 54 pt.1:79-94 '56. (MLRA 10:4)

1. Kafeira morfologii i sistematiki rasteniy.
(Armenia--Dodder)

ZALYAYEV, N.Z.

Delineating carbonate reservoirs by the laterologging method.
Geol. nefti. i gaza 9 no.4:41-44 Ap '65.

(MIRA 18:8)

1. Tatneftogeofizika.

ZALYGALOV, N.I.; FONAREVA, R.V.; PEREPELTSYN, V.I., inzhener, redaktor;
KONYASHINA, A., tekhnicheskiy redaktor.

[Drying equipment in mechanized laundries] Sushil'nye ustroystva
v mekhanicheskikh prachechnykh. Moskva, Izd-vo Ministerstva
kommunal'nogo khoziaistva ESFSR, 1955. 62 p. (MLRA 8:8)
(Drying apparatus)

ZALYGIN, S.

USSR

Candidate of Technical Sciences

"Problems of Water supply on Siberian Steppe Collective Farms" Izvestia, Nov.
25, 1949, p. 2.

SOURCE: Current Digest of the Soviet Press, Vol. 1, No. 48, 19 ,
page 55. (In [redacted] Library)

ZALYGIN, S.

"Problems of Water Supply on Siberian Steppe Collective Farms",

Izvestia, Nov. 25, 1949, p. 2.

Current Digest of the Soviet Press, Vol. 1, No. 48, 19, page 55 (In CIA Library)

ZALYGIN, Sergey Pavlovich; LAPSHIN, M., red.; TISHKOV, A., red.;
KIRILLINA, L., tekhn.red.

[In our friends' country; sketches] V strane druzei; ocherki.
Izd-vo TsK VLKSM "Molodaia gvardiia," 1958. 318 p. (MIRA 12:5)
(China--Description and travel)

SHAPCHITS, A.G., inzh.; ZALYGINA, M.F., inzh.

People and machines. Avtom., telex. i sviaz. 9 no.1:22-26
Ja '65. (MIRA 18:2)

1. Orshanskaya distantsiya (for Shapchits). 2. Otdel svyazi
sluzhby signalizatsii i svyazi Belorusskoy dorogi (for Zalygina).

LEVI, M.I.; SUCHKOV, Yu.G.; ORLOVA, G.M.; GERASYUK, I.G.; SHKODA, A.M.;
PEYSAKHIS, L.A.; STOGOVA, A.N.; LOPATINA, N.F.; SUKHARNIKOVA, N.A.;
PAK, G.Yu.; MUMINOV, K.M.; DONSKAYA, T.N.; KASSONOV, L.S.; YETIBLAT,
V.I.; MURTAZANOVA, E.Sh.; SHEL'MAN, A.I.; LAVRENT'YEV, A.P.;
BASOVA, N.N.; GOLKOVSKIY, G.M.; KULOV, G.I.; SALAMOV, N.I.;
ZALYGINA, N.I.

Results of the testing of the reactions of passive hemagglutination
and neutralization of antibodies in the epizootologic examination of
wild rodents for plague. Zhur. mikrobiol., epid. i immun. 40 no.12:
118-119 D '63. (MIRA 17:12)

1. Iz Rostovskogo i Sredne Aziatskogo protivochumnykh institutov,
Chimkentskoy, Taldy-Kurganskoy, Aralomorskoy, Turkmenskoy, Astrakhanskoy
i Frunzenskoy protivochumnykh stantsiy.

LEVI, M.I.; SUCHKOV, Yu.G.; ORLOVA, G.M.; GERASYUK, L.G.; SHKODA, A.M.;
PEYSAKHIS, L.A.; STOGOVA, A.N.; LOPATINA, N.F.; SUKHARNIKOVA, N.A.;
PAK, C.Y.; MUMINOV, K.M.; DONSKAYA, T.N.; NASSONOV, L.G.; WEINLAT,
V.I.; MURTAZANOVA, E.S.; STELMAH, A.I.; LAVRENTEV, A.F.; BASOVA,
N.N.; KULOV, G.I.; GOLKOVSKY, G.M.; SALAMANOV, N.I.; ZALYGINA, N.I.

Significance of serological methods in the epizootological study
of plague in wild rodents. J. hyg. epidem. (Praha) 8 no.4:422-427
'64.

1. Institute of Scientific Research, Rostov on the Don and Central
Asian Institute of Scientific Research, U.S.S.R.

USSR / Soil Science. Organic Fertilizers.

J

Abs Jour : Ref Zhur - Biologiya, No 11, 1958, No. 48671

Author : Zalya, A.

Inst : LITHUANIAN Sci. Res. Inst. of Agriculture

Title : The Effectiveness of Applying Different Rates of Pure Peat and Its Combination with Manure and Mineral Fertilizers

Orig Pub : Liet. zemdirb. moksl. tyrimo inst. darbai, Tr. Lit. n.-i. in-ta zemled., 1957, 3, 135-172

Abstract : According to results of field experiments conducted for many years by the Lithuanian Institute of Agriculture, bottom land peat reduces the acidity of the acid sandy loam soils while improving the physical and chemical properties of the soils in the grain, grain-grass and potato-grain-grass links of crop rotation. The

Card 1/2

USSR / Soil Science. Organic Fertilizers.

J

Abs Jour : Ref Zhur - Biologiya, No 11, 1958, No. 48671

micro-biological activity and the supply of the plants with P were increased by large doses of the peat procured from the surface of old arable peat bogs, and were decreased from the same doses of open-pit peat, rich in Fe. The effect of medium doses (20-40 t/ha) of peat on the aggregate yield of the three cultures of crop rotation proved to be equal to the effect of 20 t/ha of manure, and on the sod-gley-clay soils it corresponded to 24-45% of the effect of identical doses of manure. -- N. N. Sokolov

Card 2/2

42

ZALYS, A.

USSR/Soil Science. Organic Fertilizers.

J-4

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24770.

Author : Zalus, A.; Tamulaityte, E.; Babraitis, V.

Inst

Title : Utilization of Peat Fertilizers and Their Preparation
in the Summer.

Orig Pub: Soc. zemes ukis, 1956, No 6, 5-12.

Abstract: No abstract.

Card : 1/1

ZALYSHKIN, M.D.

ZALYSHKIN, M.D., inzhener.

Designs for electric GRU connections and elements on 6-10 kv for
high-power steam power plants. Elek.sta.28 no.7:43-48 J1 '57.
(MLRA 10:9)

(Steam power plants)

ZALYSHKIN, Mikhail Denisovich; DEMKOV, Ye.D., red.; BORUNOV, N.I.,
tekh.red.

[Choice of transformers in electric power systems] Vybór
transformatorov v energeticheskikh sistemakh. Moskva, Gos.
energ.izd-vo, 1960. 93 p. (MIRA 13:11)
(Electric substations) (Electric transformers)

ZALYSHKINA, N.

M.I. Kalinin on the role and tasks of Soviet trade unions. Sov.
profsoiuzy 5 no.12:6-12 0 '57. (MIRA 10:11)
(Kalinin, Mikhail Ivanovich, 1875-1946) (Trade unions)

ZALYSHKINA, O.

[Abstracts of scientific works for 1943] Referaty nauchnykh rabot za 1943 g. Akademiia nauk SSSR, Moscow-Leningrad, 1945. 57 p.
(Science--Abstracts) (MLBA 7:8)

SHTUKINA, T.S.; ZALYUBOVINA, G.T.

Perseida in 1961. Biul. VAGO no.33:9-10 '63. (MIRA 16:4)

1. Moskovskoye otdeleniye Vsesoyuznogo astronomo-geodesicheskogo
obshchestva, meteornyy otdel.
(Meteors--August)

L 39951-65 EWT(1)/EWT(m)/EPF(n)-2/T/EWP(t)/EEC(b)-2/EWP(b)/EWA(c)
P1-4/P2-4 JJP(c) JJ/JG/GG

ACCESSION NR: ATR007909

S 0075/63/018/012/1475/1478

AUTHOR: Bulgakova A. M. ; Zalyubovskaya, N. P. .

B

TITLE: Use of the kinetic method with amperometric registration to determine molybdenum and tungsten in cadmium sulfide and lithium fluoride, single cry

SOURCE: Zhurnal analiticheskoy khimii, v. 18, no. 12, 1963, 1475-1478

TOPIC TAGS: semiconductor, single crystal cadmium sulfide, optical glass, lithium fluoride, trace analysis, molybdenum trace determination, tungsten trace determination, molybdenum separation, tungsten separation, solvent extraction, catalytic iodide oxidation, molybdenum catalyst, tungsten catalyst, alkali halide, molybdenum extraction, tungsten extraction

Card 1/3

L 39951-65

ACCESSION NR: AP4007909

1958) whereby even a slight change in the iodide-iodine concentration ratio in the reaction medium can be recorded amperometrically with the use of two platinum indicator electrodes. The least probable error in determining molybdenum traces is by use of the amperometric method under constant temperature conditions. The advantage of such a method, in addition to its only requiring

Card 2/3

L 39951-65

ACCESSION NR: AP4007909

A new method is suggested for determining molybdenum and tungsten traces in the single crystals of cadmium sulfide and lithium fluoride. Orig. art. has: 1 figure, 4 tables, 3 formulas

ASSOCIATION: Vsesoyuznyy Nauchno-issledovatel'skiy institut monokristallov, Stsintillyatsionnykh materialov i osobo chistykh khimicheskikh veshchestv, USSR Academy of Sciences, Institute of Monocrystals, Scintillat-

SUBMITTED: 1948 110

SUB CODE: SS, G

NO REF SOV: 005

OTHER: 002

Card 3/3 JO

BULGAKOVA, A.M.; ZALYUBOVSKAYA, N.P.

Use of a kinetic method with amperometric recording for the determination of molybdenum and tungsten in cadmium sulfide and lithium fluoride single crystals. Zhur. anal.khim. 18 no.12: 1475-1478 D '63. (MIRA 17:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov stantsionnykh materialov i osobo chistykh khimicheskikh veshchestv, Khar'kov.

ZALYUBOVSKIY, I. I., KLYUCHAREV, A. P., LUTSIK, V. A., and VAL' TER, A. K.

"Gamma-Radiation Produced in Inelastic Scattering by Intermediate Weight Nuclei,"

Physical Tech. Inst. Acad. Sci. Ukr SSR

paper submitted at the A-U Conf. on Nuclear Reactions in Medium and Low Energy Physics, Moscow, 19-27 Nov 57.

ZALYUBOVSKIY, I.I., Cand Phys-Math Sci--(diss) "Study of gamma transitions
in ⁵⁷Fe ~~with~~ ^{under of energy} atomic weight ~~measured~~." Khar'kov, 1958. 7 pp (Min of Higher Edu-
cation URSSR. Khar'kov Order of Labor Red Banner State U in A.K. Gor'kiy),
100 copies. Bibliography at end of text (12 titles) (KL, 31-58, 99)

-6-

VALTER, A. K., ZALYUBOVSKIY, I. I., KLYUCHAREV, A. P. and LUTSEK, V. A.

"Les Niveaux d'energie des noyaux moyens."

report presented at the Intl. Congress for Nuclear Interactions Low Energy) and Nuclear Structure (Intl. Union Pure and Applied Physics) Paris, 7-12 July 1958.

VAL'TER, A.K.; ZALIUBOVSKIY, I.I. [Zaliubovs'kiy, I.I.]; KLYUCHAREV, A.P.
[Kliuchariev, O.P.]; LUTSIK, V.P. [Lutsyk, V.P.]

Energy levels of a Zn⁶⁵ nucleus [with summary in English]. Ukr.
fiz. zhur. 4 no.1:46-51 Ja-F '59. (MIRA 12:6)

I.Fiziko-tekhnicheskii institut AN USSR i Khar'kovskiy gosudarstvennyy universitet.
(Zinc--Isotopes) (Nuclear shell theory)

21(7)

AUTHORS: Val'ter, A. K., Zalyubovskiy, I. I., Klyucharev, A. P.,
Krivets, G. Ye., Lutsik, V. A. SOV/48-23-2-12/20

TITLE: On the Excitation States of the Nuclei Ga^{67} and Ga^{68}
(O vozbuzhdennykh sostoyaniyakh yader Ga^{67} i Ga^{68})

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959,
Vol 23, Nr 2, pp 225-227 (USSR)

ABSTRACT: For the study of the lower energy levels Gd^{67} and Gd^{68} the
authors investigated the γ radiation which occurs in the
reactions $Zn^{66}(p,\gamma)Ga^{67}$, $Zn^{67}(p,n\gamma)Ga^{67}$ and $Zn^{67}(p,\gamma)Ga^{68}$.
The zinc targets used were enriched with Zn^{66} and Zn^{67} . The
 γ lines determined during proton irradiation of the targets
are listed (representation of the spectra in figures 1 and 2).
The lines 170, 358, 850, and 510 keV are caused by re-
actions of the types $Zn^{66}(p,\gamma)Ga^{67}$, $Zn^{67}(pn\gamma)Ga^{67}$. The $(p,n\gamma)$
reaction corresponds to the transition from the secondary
excitation state into the basic state; it is a threshold re-

Card 1/2

On the Excitation States of the Nuclei Ga^{67} and Ga^{68} SOV/48-23-2-12/20

action. According to these data, a scheme of the lower energy levels of Ga^{67} is given in figure 4. Because of the difficulties of investigating reaction $Zn^{67}(p,\gamma)Ga^{68}$ the authors measured only the upper limit of the γ spectrum in the Ga^{68} decay. It is found at γ quantum energies of 2.05 ± 0.1 Mev. There are 4 figures and 4 references, 3 of which are Soviet.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk USSR, Khar'kovskiy gos. universitet im. A. M. Gor'kogo
(Physico-technical Institute of the Academy of Sciences, UkrSSR, Khar'kov State University imeni A. M. Gor'kiy)

Card 2/2

VAL'TER, A.K.; ZALYUBOVSKIY, I.I. [Zaliubovs'kyi, I.I.]; KRIVETS, G.Ye.
[Kryvets', H.IU.]; LUTSIK, V.P. [Lutsyk, V.P.]

Isomeric states of odd-odd nuclei from the viewpoint of a
collective model. Ukr.fiz.zhur. 4 no.6:689-696 N-D '59.

(MIRA 14:10)

1. Fiziko-tekhnicheskii institut AN USSR.
(Isomerism) (Nuclear models)

VAL'TER, A.K.; ZALIUBOVSKIY, I.I. [Zaliubovs'kyi, I.I.]; LUTSIK, V.P.
[Lutsyk, V.P.]

Applying a generalized nuclear model for describing the ground
states of nuclei of medium atomic weight. Ukr.fiz.zhur. 4
no.6:697-707 N-D '69. (MIRA 14:10)

1. Fiziko--tehnicheskii institut AN USSR i Khar'kovskiy
gosudarstvennyy universitet.
(Nuclear models)

85587

S/048/60/024/007/020/032/XX
B019/B056

24.6720

AUTHORS: Bozhko, V. P., Zalyubovskiy, I. I., and Tutubalin, A. I.

TITLE: Measurement of the Mean Lifetime of the Lu^{175} Nucleus in the Excited State With an Energy of 113.8 keV

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 7, pp. 847-849

TEXT: This paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which took place in Moscow from January 19 to 27, 1960.

The first excited state of the Lu^{175} nucleus, which is formed in the β^- -decay of Y^{175} , was investigated. As the β^- -transitions to this level amount to only 5% of all Yb^{175} -decays, the experiments are very difficult. The apparatus to be used must therefore consist of a good discriminator and a good coincidence circuit. Stilbene crystals with a photomultiplier were used for the detection of β^- - and γ -emissions. β - γ - and γ - β - coincidence curves are shown in Fig. 2. From the distance between the centers of mass of these curves, the authors calculate the half-life of this state as

Card 1/3

85587

S/048/60/024/007/020/032/II
B019/B056

Measurement of the Mean Lifetime of the Lu^{175}
Nucleus in the Excited State With an Energy
of 113.8 keV

amounting to $T = (3.6 \pm 0.6) \cdot 10^{-10}$ secs. According to data supplied by
Martin, Hatch, and Bernstein (Refs. 6-8), the authors estimate the mean
lifetime of this state as amounting to $1.1 \cdot 10^{-10}$ secs. Here, the E2 ad-
mixture was assumed to amount to 20%. There are 2 figures and 9 references:
3 Soviet, 4 US, and 1 Swiss.

ASSOCIATION: Fiziko-tekhnicheskii institut Akademii nauk USSR (Institute
of Physics and Technology of the Academy of Sciences UkrSSR)

Card 2/3

85587

S/048/60/024/007/020/032/XX
B019/B056

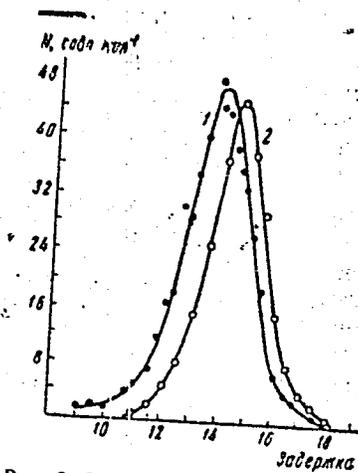


Рис. 2. Кривые задержанных β-γ- (1) и γ-β- (2) совпадений. Одно деление на оси абсцисс равно $1,55 \cdot 10^{-2}$ сек

Card 3/3

S/185/60/005/002/015/022
D274/D304

AUTHORS: Val'ter, A.K., Zalyubovs'kyi, I.I., Klyucharyev,
O.P., Pasichnyk, M.V., Pucherov, M.M. and Chyrko,
B.I.

TITLE: Elastic scattering of protons with an energy of
6.8 MeV by isotopes of chromium, nickel and copper

PERIODICAL: Ukrayins'kyi fizychnyy zhurnal, v. 5, no. 2, 1960,
270-272

TEXT: The angular distribution of elastically scattered protons
by the isotopes: Cr⁵², Cr⁵³, Ni⁵⁸, Ni⁶⁰, Ni⁶², Cu⁶³, Cu⁶⁵ is inves-
tigated. Up to now it has not been easy to formulate a theoretical
interpretation of the effects related to proton scattering; hence,
the importance of gathering and systemizing relevant data. The
protons with energy 6.8 ± 0.1 MeV were obtained on the cyclotron
of the Physics Institute of the UkrSSR. The proton scattering was
detected by a scintillation spectrometer. The measurements were
conducted from 20° to 160°, at angle intervals of 5°. The investi-

Card 1/3

Elastic scattering of protons...

S/185/60/005/002/015/022
D274/D304

gated mixtures contained at least 98% of the isotope, with the exception of Cr⁵³ whose proportion was 95%; they were in the form of thin (3 - 4 μ) plates. The results of the investigations are given in 2 figures, where the angular distribution is plotted as the ratio of an experimental differential cross-section to the Rutherford cross-section. The results show a noticeable shift in the position of the maxima and minima of the angular distributions. It is noted that such a shift is observed for small differences in the mass number of the scatterer nucleus. Thus the distribution curve for Cu⁶⁵ is shifted by 5° with respect to that of Cu⁶³. Such a result is in good agreement with data on proton scattering with 19.6 MeV energy. The form of the distribution curves for both Cu isotopes is entirely identical. The results for Cr isotopes are different. The differential cross-section in the region of large angles is considerably greater for Cr⁵² than for Cr⁵³. It is noted that it would be even much greater if the energy separation in the experiment would be higher. In the case of Ni isotopes, the distribution curve for Ni⁶² differs greatly from those for Ni⁶⁰. For Ni⁶² the cross section decreases considerably with increasing angles larger

Card 2/3

Elastic scattering of protons...

S/185/60/005/002/015/022
D274/D304

than 120° . The angular distribution for Ni^{58} and Ni^{60} is in the main similar to that for natural isotope mixtures; this is not unexpected. The observed considerable difference in scattering by Ni isotopes, which may be related to various degree of absorption, is somewhat unexpected, though it does not contradict the results obtained by A.P. Klyucharev and N.Ya. Rutkevich (Ref. 3; ZhETF, 1, 1960). There are 2 figures and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: M.K. Brussel, I.H. Williams, Phys. Rev., 114, 525, 1959.

ASSOCIATION: Instytut fizyky AN USSR (Physics Institute AS Ukr-SSR) Fizyko-tekhnichnyy instytut AN USSR (Physico-technical Institute AS UkrSSR) ✓

SUBMITTED: November 19, 1959

Card 3/3

83575

S/056/60/038/005/008/050
B006/B070

24.6510
AUTHORS:

Val'ter, A. K., Zalyubovskiy, I. I., Klyucharev, A. P.,
Pasechnik, M. V., Pucherov, N. N., Chirko, V. I.

TITLE:

Angular Distributions of 6.8-Mev Protons Elastically
Scattered by Chromium-, Nickel-, and Copper Isotopes

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 38, No. 5, pp. 1419-1423

TEXT: The authors have determined the angular distribution of 6.8-Mev protons elastically scattered by Cr^{52,53}, Ni^{58,60,62}, and Cu^{63,65}. (6.8±0.1)-Mev protons were obtained from the cyclotron of the Institut fiziki AN USSR (Institute of Physics of the AS UkrSSR). The scattered protons were recorded by a scintillation spectrometer which consisted of a CsI(Tl) crystal, a photomultiplier of the type ФЭУ-29 (FEU-29), and a 50-channel pulse-height analyzer of the type АИНА-1 (AIMA-1). Measurements were made between 20° and 160° every 5°, the angles being determined with an accuracy of 0.3°. Depending on the thickness of the target, the energy resolution of the scintillation spectrometer was 4-6%.

Card 1/3

83575

Angular Distributions of 6.8-Mev Protons
Elastically Scattered by Chromium-, Nickel-,
and Copper Isotopes

S/056/60/038/005/008/050
B006/B070

The energy spectrum of the scattered protons was taken for each angle of measurement. The differential scattering cross section was determined in the center-of-mass system. Free films of 3 - 5 μ thickness, enriched in the isotope to be studied to 93-98% served as targets. The compositions of the targets are given in a table. For a majority of the investigated nuclei, the energy resolution of the scintillation spectrometer was adequate to separate the group of inelastically scattered protons from that of elastically scattered protons. One of these energy spectra (Cr^{52}) is shown in Fig. 1. In this spectrum taken at 90° the first level (1.44 Mev) is distinctly marked; this group of protons can be well separated from the elastically scattered protons. The groups of protons related to the excitation of the lowest levels, 0.54 and 1.01 Mev, of the Cr^{53} nucleus can make a significant contribution to the elastic scattering, particularly for large scattering angles, because the high-energy resolution is inadequate. The angular distribution of elastically scattered protons for the two chromium isotopes and $E_p = 6.8$ Mev is shown in Fig. 2. The first excited states of $\text{Ni}^{58,60,62}$ are at 1.44, 1.33, and 1.17 Mev, respectively. The proton groups corresponding to these levels can be easily separated from the group of

Card 2/3

83575

Angular Distributions of 6.8-Mev Protons
Elastically Scattered by Chromium-, Nickel-,
and Copper Isotopes

S/056/60/038/005/008/050
B006/B070

elastically scattered protons. The angular distribution curves for Ni⁵⁸ and Ni⁶⁰ show analogous behavior, the curve for protons scattered from Ni⁶² deviates considerably from the former two (Fig. 3). The angular distributions and cross sections for the two copper isotopes show again analogous behavior; only, as for chromium, the curve for the heavier isotope is slightly (5°) shifted toward smaller angles. It is found that in order to obtain good agreement between theory and experiment, one must take into account, in the optical model, not only the spin-orbit interaction of the incident nucleon but also the effect of the shell structure of the nucleus on scattering. There are 4 figures, 1 table, and 12 references: 5 Soviet, 6 US, and 1 Japanese.

ASSOCIATION: Fiziko-tekhnicheskii institut Akademii nauk Ukrainskoy SSR
(Institute of Physics and Technology of the Academy of
Sciences Ukrainskaya SSR)

SUBMITTED: November 17, 1959

Card 3/3

84425

S/056/60/039/004/043/048
B006/B056

24.6200

AUTHORS:

Val'ter, A. K., Zalyubovskiy, I. I., Klyucharev, A. P.,
Lutsik, V. A.

TITLE:

A New Method of Identifying γ -Radiations in the Reactions 19
(p,p' γ), (p, γ), and (p,n γ)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 39, No. 4(10), pp. 1159 - 1161

TEXT: The investigation of nuclear levels by the bombardment of targets with low-energy protons is rendered difficult by not being able without any difficulty to decide whether the gamma radiation observed is due to a (p, γ), a (p,p' γ), or a (p,n γ) reaction. In the present "Letter to the Editor", the writers first discuss the factors influencing the relative frequency of the individual reactions. Thus, if this is possible from the viewpoint of energy, a gamma radiation accompanied by nucleons is more probable than a pure one, and the existence of the potential barrier, in turn, renders proton emission difficult, so that the reaction (p,n γ) is predominant; besides, the neutron emission probability near the

Card 1/3

84425

S/056/60/039/004/043/048
B006/B056

A New Method of Identifying γ -Radiations in
the Reactions $(p,p'\gamma)$, (p,γ) , and $(p,n\gamma)$

(p,n) threshold grows quickly with the energy of the emitted neutrons, so that the $(p,p'\gamma)$ and (p,γ) reaction yields in certain proton energy ranges above the (p,n) threshold decrease quickly. By an investigation of the gamma yields of each of the observed lines as a function of proton energy in the (p,n) threshold region, it is possible to separate the gamma radiations resulting from the reactions $(p,p'\gamma)$ and (p,γ) of the investigated isotope from those of the admixtures, because it is improbable that the (p,n) thresholds are near to one another. An increase of proton energy beyond the (p,n) threshold causes an excitation of higher levels of the nucleus in the $(p,n\gamma)$ reaction, and each time after a level excitation threshold is exceeded, a decrease of the gamma-radiation intensity of the reactions $(p,p'\gamma)$ and (p,γ) may be observed. The (p,n) thresholds are well known for all stable isotopes, and deviate only little from one another for isotopes of the same element. In order to exclude changes in the gamma yield caused due to various proton capture probabilities on the individual levels of the compound nuclei, the target thickness must be chosen in a particular manner - for medium nuclei about 1μ . For the purpose of investigating nuclear levels by means of $(p,n\gamma)$ reactions, one proceeds in the opposite order by investigating the dependence of the gamma yield of

Card 2/3

84425

A New Method of Identifying γ -Radiations in the Reactions $(p,p'\gamma)$, (p,γ) , and $(p,n\gamma)$ S/056/60/039/004/043/048
B006/B056

the reactions $(p,p'\gamma)$ and (p,γ) of the isotope in a large proton-energy range above the (p,n) threshold, thus determining the level excitation thresholds; hereafter, the threshold of the occurrence of gamma radiation from the $(p,n\gamma)$ reaction is determined - both must coincide if the gamma radiation investigated actually originates from the $(p,n\gamma)$ reaction, and corresponds to a transition from the investigated level to the ground state. In this method, the accuracy of level-energy determination is independent of the target thickness. As an example for a successful application of this method, the results obtained by investigating the reactions $Co^{59}(p,n)Ni^{59}$ and $Cu^{65}(p,n)Zn^{65}$ are given and discussed. A figure shows the excitation functions of some 465- and 1330-kev and 770- and 1015-kev lines, respectively. The target thicknesses were 1μ and 5μ , respectively. A number of numerical results are given. There are 1 figure and 2 references: 1 Soviet and 1 US. X

ASSOCIATION: Fiziko-tekhnicheskii institut Akademii nauk Ukrainskoy SSR
(Institute of Physics and Technology of the Academy of
Sciences Ukrainskaya SSR)

SUBMITTED: July 18, 1960

Card 3/3

GOLOVNYA, V.Ya.; ZALYUBOVSKIY, I.I.; SHILYAYEV, B.A.

Sensitive current integrator. Prib. i tekhn. eksp. 6 no.1:99-101
Ja-F '61. (MIRA 14:9)

1. Fiziko-tekhnicheskiy institut AN USSR.
(Pulse techniques (Electronics))

20695

S/120/61/000/001/033/062
E194/E184

9.6000 (1040, 1067, 1089)

AUTHORS: Stupak, V.G., Leontovich, K.A., and Zalyubovskiy, I.I.

TITLE: A High-Speed Time Converter

PERIODICAL: Pribery i tekhnika eksperimenta, 1961, No.1, pp.109
and 108.

TEXT: This instrument can assess the time interval between impulses in the range 2×10^{-6} to 1 sec. This problem is frequently encountered in the study of nuclear decomposition, in the investigation of short-lived elements and also in studies on neutrons. Time reckoning commences from application of an impulse to the control grid Λ_1 (L_1). The flip-flop oscillator Λ_2 (L_2) converts the impulse into one of standard wave shape and amplitude. After differentiation the standard impulse starts the variable line voltage generator based on the valves Λ_{3-6} (L_{3-6}); here L_5 serves as a charging resistance for the capacitances C_{18-23} (S_{18-23}). As the pentode current is independent of the anode voltage a saw-tooth wave-shape is obtained with an amplitude up to 140 V with a high degree of linearity. This saw-tooth wave-shape is then applied to the addition circuit, Λ_7 Λ_8 Λ_3

Card 1/2

20695

A High-Speed Time Converter

S/120/61/000/001/033/062
E194/E184

(L7, L8, D3. Thus from the instant of application of impulse to the input L1 the voltage on the addition element commences to change in a linear manner. An impulse, retarded by a time t relative to the impulse applied to L1 reaches the control grid Λ_{11} (L11) and on valves Λ_{12-14} (L12-14) is converted into a narrow negative impulse of standard amplitude and duration of 0.6 μ sec and there is applied to resistance R41, a linearly changing voltage, i.e. the impulse is added to a voltage the instantaneous value of which depends on the delay time of the impulse applied to L11 relative to the other impulse reaching L11. The impulse evolved in the addition circuit is then lengthened to some μ secs and is then applied to any convenient type of amplitude analyser. Valves Λ_{18} (L18) and Λ_{19} (L19) fulfil the function of blocking the input circuits.

There is 1 figure (on page 108)

ASSOCIATION: Fiziko-tekhnicheskiy institut AN USSR
(Physico-technical Institute, AS Ukr.SSR)

SUBMITTED: January 13, 1960

Card 2/2

LX

ZALYUBOVSKIY, I. I.

ZALYUBOVSKIY, I. I., GOLOBINAYA, V. I., and CHILYEV, B. A.

"Sensitive Current Integrator"

report submitted for the IAEA conf. on Nuclear Electronics, Belgrade, Yugoslavia
15-20 May 1961

Phys-Tech Inst, Acad Sci Ukr SSR, Kharkov

VAL'TER, A.K.; ZALYUBOVSKIY, I.I. [Zaliubovs'kiy, I.I.];
KLYUCHARIN, V.A. [Kliuchariev, V.O.]; LUTSIK, V.A. [Lutsyk, V.P.]

Study of gamma-transitions in the $\text{Co}^{59}(\text{p}, \text{n}\gamma)\text{Ni}^{59}$. Ukr.
fiz. zhur. 6 no.3:318-332 My-Je '61. (MIRA 14:8)

1. Fiziko-tehnicheskiy institut AN USSR i Khar'kovskiy
gosudarstvennyy universitet im. Gor'kogo.

(Cobalt--Isotopes)
(Niobium--Isotopes)
(Nuclear reactions)

VAL'TER, A.K.; ZALYUBOVSKIY, I.I.; KLYUCHAREV, A.P.; LUTSIK, V.A.; ORLENKO,
B.F.; PASECHNIK, M.V.; PROKOPENKO, V.S.; PUCHEPOV, N.M.

Angular distribution of 6.8 mev. protons elastically scattered on
nickel and zirconium isotopes. Zhur.eksp.i teor.fiz. 41 no.1:71-
74 JI '61. (MIRA 14:7)

1. Institut fiziki AN Ukrainskoy SSR i Fiziko-tekhnicheskii institut
AN Ukrainskoy SSR.
(Protons--Scattering) (Nickel--Isotopes) (Zirconium--Isotopes)

VAL'TER, A.K.; ZALTUBOVSKIY, I.I.; KLYUCHAREV, A.P.; LUTSIK, V.A.

Cu⁶⁴ levels excited in the reaction Ni⁶⁴(p, n γ) Cu⁶⁴.
Izv. AN SSSR. Ser. fiz. 25 no.9:1127-1130 '61.

(MIRA 14:8)

1. Fiziko-tekhnicheskiy institut AN USSR.
(Niobium—Isotopes)
(Copper—Isotopes)
(Nuclear reactions)

40104

S/O48/62/026/008/020/028
B104/B102

24.6600

AUTHORS: Val'tan, A. K., Gonchar, V. Yu., ~~Zalyubovskiy, I. I.,~~
Latyshev, G. D., and Chursin, G. P.

TITLE: Study of the (np) and (n,np) reactions on heavy nickel isotopes

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,
v. 26, no. 8, 1962, 1079-1084

TEXT: The object of this study was to find possibilities for further investigations of spectra and angular distributions of the products of (np) and (n,np) reactions on nickel, and to check the rules governing the reaction cross sections as found by V. N. Levkovskiy (ZhETF, 31, 360, 1956; 33, 1520, 1957). A tritium target (T being adsorbed to zirconium) was bombarded by 100-kev deuterons and sufficiently fast neutrons were produced in the $T(d,n)He^3$ reaction. A recoil proton telescope was used as neutron monitor and the β -activity induced was measured with a scintillation counter. The half-lives were determined by a multi-channel analyzer. The reaction cross sections obtained (Table) agree with pub-

Card 1/2

S/048/62/026/008/020/028
B104/B102

Study of the (np) and (n,np) ...

lished data within the limits of error. The rule found by Levkovskiy for the (np) reaction cross sections of various isotopes of an element applies very well to Ni. There are 5 figures and 1 table. f.

ASSOCIATION: Khar'kovskiy gos. universitet im. A. M. Gor'kogo (Khar'kov State University imeni A. M. Gor'kiy). Institut yadernoy fiziki Akademii nauk KazSSR (Institute of Nuclear Physics of the Academy of Sciences KazSSR)

Table. Cross sections. Legend: (1) reaction, (2) half-life, (3) Q, Mev, (4) σ , millibarn.

Ni ⁶⁰ (np) Co ⁶¹	(1)	104±2	(2)	-0,63	(3)	86±3	(4)
Ni ⁶² (np) Co ⁶²		13,9±0,2		-3,14		22±1	
Ni ⁶⁴ (np) Co ^{64a}		1,5±0,1		-		34±2	
Ni ⁶⁴ (np) Co ⁶⁴		9,3±0,9		-5,08		5±1	
Ni ⁶⁴ (np) Co ^{64b}		2±0,2		-		2±1	
Ni ⁶² (n, np) Co ⁶¹		104±2		-9,70		4±1,5	
Ni ⁶⁴ (n, np) Co ⁶³		122±5		-10,86		6±1,5	

Card 2/2

S/056/63/044/002/012/065
B102/B186

AUTHORS: Chursin, G. P., Gonchar, V. Yu., Zalyubovskiy, I. I.,
Klyucharev, A. P.

TITLE: The (n,p) reaction cross-sections for tin isotopes at
neutron energies of 14.5 Mev

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,
no. 2, 1963, 472-474

TEXT: The activation method was used for measuring the (n,p) reaction cross-sections in metallic thin-foil targets, enriched with the following isotopes: Sn¹¹² 66.2%, Sn¹¹⁶ 92.8%, Sn¹¹⁸ 88.4%, Sn¹¹⁹ 74.8% and Sn¹²⁰ 99.1%. The cross-sections of the reactions Al²⁷(n,p)Mg²⁷, Ag¹⁰⁷(n,2n)Ag¹⁰⁶ and Ag¹⁰⁹(n,2n)Ag¹⁰⁸ were determined in test measurements. A comparison of the experimental cross-sections with those calculated by D. G. Gardner (Nucl. Phys., 29, 373, 1962) and V. N. Levkovskiy (ZhETF, 33, 1520, 1957) shows that the semi-empirical law of the decrease of $\sigma_{(n,p)}$ with increasing

Card 1/3

The (n,p) reaction cross-sections ...

S/056/63/044/002/012/065
B102/B186

mass number obtained by Gardner is not consistent with the experiment. It is suggested that the nuclear shell effects and the presence of strongly competing reaction channels on transition from isotope to isotope be taken into account.

	Exper. σ (n,p), mb	Levk.	Gard.
Sn ¹¹² (n, p) In ¹¹² 18.4 min	10,0 ^{+1,2} _{-2,6}	30,4	1702
Sn ¹¹⁸ (n, p) In ¹¹⁸ 5.4 "	5,4±1,5	11,2	112
Sn ¹¹⁶ (n, p) In ¹¹⁶ 4.5 "	11,7±2,5	0,47	28
Sn ¹¹⁸ (n, p) In ^{110m} 17.5 " [4.0 min]	11,1±2,5	4,0	14
Sn ¹¹⁸ (n, p) In ^{110g} + Sn ¹¹⁸ (n, np) In ¹¹⁸	10,6±2,8	—	—
Sn ¹²⁰ (n, p) In ¹²⁰ 51 sec	4,6±1,2	3,8*	7

There is 1 table.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet (Khar'kov State University); Institut yadernoy fiziki Akademii nauk Kazakhskoy SSR (Institute of Nuclear Physics of the Academy of Sciences Kazakhskaya SSR)

Card 2/3

The (n,p) reaction cross-sections ...

S/056/63/044/002/012/065
B102/B186

SUBMITTED: August 27, 1962

Card 3/3

S/056/53/041/004/002/044
B102/B186

AUTHORS: Klyucharev, V. A., Val'ter, A. K., Zalyubovskiy, I. I.,
Afasias'yev, V. D.

TITLE: Measurement of the gyromagnetic ratio of the W^{182} nucleus in
the first excited state

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,
no. 4, 1963, 1136 - 1140

TEXT: The authors developed an apparatus suitable for measuring the gyro-
magnetic ratio of excited nuclei according to the method of Coulomb excita-
tion as well as to the method of $\gamma\gamma$ -correlation. Its main parts are a two-
channel goniometer, an electronic recorder, and an electromagnet generating
fields of up to 35000 gauss. The γ -detector consists of a NaI(Tl) crystal
with an ФЭУ-42 (FEU-42) photomultiplier; its pulses are fed to a fast-slow
coincidence circuit. The gyromagnetic ratio of the first excited state
(100 keV) of the even-even W^{182} nucleus was measured by the $\gamma\gamma$ -correlation
method. Neutron-irradiated natural metallic tantalum was used as a gamma
source. The gyromagnetic ratio was determined from the perturbation of
the $\gamma\gamma$ -correlation of the 229 - 100 keV cascade caused by the magnetic
Card 1/2

Measurement of the gyromagnetic ratio...

S/056/63/044/004/002/044
B102/B186

field (35 kgauss). The shift of the correlation function $W(\theta)$ was $\Delta\theta = 4^{\circ}10'$ which corresponds to a gyromagnetic ratio $g = 0.247 \pm 0.037$. In the case of a liquid source, $\Delta\theta$ was $5^{\circ}35'$ corresponding to $g = 0.323 \pm 0.048$. The mean value for both measurements is $g = 0.285 \pm 0.042$. The anisotropy factors of the unperturbed correlation functions were $A_2 = 0.087 \pm 0.008$ and $A_2 = 0.108 \pm 0.008$ for a solid and liquid source, respectively. There are 2 figures.

ASSOCIATION: Fiziko-tekhnicheskii institut Akademii nauk Ukrainskoy SSR (Physicotechnical Institute of the Academy of Sciences Ukrainskaya SSR); Khar'kovskiy gosudarstvennyy universitet (Khar'kov State University)

SUBMITTED: August 31, 1962

Card 2/2

ZUBRITSKIY, L.A.; CHURSIN, G.P.; GONCHAR, V.Yu.; ZALYUBOVSKIY, I.I.

Surface-barrier semiconductor counters with protective electrodes.
Izv. AN SSSR. Ser. fiz. 28 no.1:105-106 Ja '64. (MIRA 17:1)

1. Institut yadernoy fiziki AN KazSSR i Khar'kovskiy gosudarstvennyy universitet im. A.M.Gor'kogo.

ACCESSION NR: AP4041055

S/0120/64/000/003/0214/0214

AUTHOR: Tsirlin, Yu. A.; Zalyubovskiy, I. I.; Sokolovskaya, T. I.;
Neznamov, V. G.; Nikulina, R. A.

TITLE: Light response of CsI(Tl) crystal to proton and deuteron energy

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1964, 214

TOPIC TAGS: CsI(Tl) crystal, CsI(Tl) crystal light response, proton energy,
deuteron energy

ABSTRACT: The light response of CsI(Tl) crystals was measured in the 10--100
keV range on a Kharkov State University kevatron. The response P to protons was
found to be lower than the response D to deuterons, the ratio D:P being about 1.3.
The nonlinear segment of the curve lies below 25 keV. Orig. art. has: 1 figure.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut mozkristallov
(All-Union Scientific-Research Institute of Single Crystals)

SUBMITTED: 05Jun63

ENCL: 00

SUB CODE: NP

NO REF SOV: 000

OTHER: 003

Card 1/1

TSIRLIN, Yu.A.; ZALYUBOVSKIY, I.I.; SOKOLOVSKAYA, T.I.; NEZNAMOV, V.G.
NIKULINA, R.A.

Dependence of the luminous yield of CsI(Tl) crystals on the
proton and deuteron energy. Prib. i tekhn. eksp. 9 no.3:214
My-Je '64 (MIRA 18:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov.

BAKR, M. Kh.S.; QONCHAR, Y. Yu.; ZAGLUL, R.; ZALYUBOVSKIY, I. I.; LITSIK, V. A.;
QMAR, Kh. M. 4

"Investigation of the Reaction $Mg^{24}(d,p)Mg^{25}$ and $Mg^{26}(d,p)Mg^{27}$ in the Region
 E_d 0.7 - 2.5 MeV."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22
Feb 64.

Atomic Com, GAR, G. Kair.

GONCHAR, V. Yu.; YEL'BAKHEY, A. Z.; ZALYUBOVSKIY, I. I.; LUTSIK, V. A.; MOHAMMED, M.F.A.;
KRUSEYN, M. N. 4

"Investigation of proton groups from the reactions $F^{19}(d,p)F^{20}$."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22
Feb 64.

Atomic Com, OAR, g. Khir.

VAL'TER, Anton Karlovich; ZALYUBOVSKIY, Il'ya Ivanovich; NEMETS,
O.F., prof., otv. red.; VAYNBERG, D.A., red.

[Nuclear physics] IAdernaia fizika. Khar'kov, Izd-vo
Khar'kovskogo univ., 1963. 367 p. (MIRA 17:5)

VAL'TER, A.K.; ZALYUBOVSKIY, I.I. [Zaliubovs'kiy, I.I.];
KLYUCHAREV, V.A. [Kliuchar'ov, V.O.]; AFANAS'YEV, V.D.
[Afanas'iev, V.D.]

Measurement of the gyromagnetic ratios of nuclei in the
excited state. Ukr. fiz. zhur. 8 no.9:933-946 S '63.
(MIRA 17:8)